

CLAIMS

The following listing of claims lists all of the pending claims, and supersedes all prior listings, and versions, of claims in this application.

LISTING OF CLAIMS:

1. (Currently amended) A system to convert thermal into motive energy comprising at least one pressure vessel, including at least one upper injection orifice for a fluid that is warm or cold, and a liquid piston pump within the at least one pressure vessel that is coupled with a working cycle, wherein the pressure vessel has a horizontal wall provided with a borehole, ~~and~~ further wherein above the wall there is a gas or gas mixture and the liquid piston pump is below the wall, and further wherein the float valve comprises a basket screwed into the wall to receive a plastic sphere, wherein the basket has a cylindrical part of the borehole.

2 – 14. (Canceled)

15. (Previously presented) The system according to Claim 1, wherein the borehole expands conically in the direction of the section of the pressure vessel filled with gas.

16. (Previously presented) The system according to Claim 1, wherein a float valve with a borehole for limiting a fill level of the liquid piston pump is inserted into the wall.

17. (Canceled)

18. (Currently amended) The system according to Claim 1 ~~[[17]]~~, wherein the basket carries a screen affixed via distance sleeves, which screen projects into the area of the pressure vessel filled with gas or a gas mixture.

19. (Previously presented) The system according to Claim 1, wherein the pressure vessel has on its lower end a connection piece to connect to a flow line of the working cycle.

20. (Previously presented) The system according to Claim 19, wherein the connection piece is coupled with a backflow line of the working cycle.

21. (Currently amended) The system according to Claim 20[[7]], wherein the backflow line of the working cycle is connected with interposition of a controllable valve to a conduit leading to the injection orifice for the cold fluid or to a supply vessel for the fluid.

22. (Previously presented) The system according to Claim 20, wherein the flow line leads to a turbine, from which the backflow line exits.

23. (Previously presented) The system according to Claim 21, wherein the flow line is connected to the supply vessel via a conduit.

24. (Previously presented) The system according to Claim 23, wherein a conduit exits from the supply vessel, and the conduit branches off with the interposition of valves to a heating and cooling device for the fluid.

25. (Previously presented) The system according to Claim 24, wherein the heating device and the cooling device are respectively coupled with one of the injection orifices with the interposition of a controlled valve.

26. (Previously presented) The system according to Claim 1, wherein the fluid is water or an organic substance including pentane, toluene, or silicone oil.

27. (Currently amended) The system according to ~~one of Claim~~[[s]] 1-~~to 13~~, wherein a short-circuit pipeline with at least one controllable valve for pressure compensation between the pressure vessels is respectively provided between two of the pressure vessels after the performance of the work of the gas.